

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;  
and

~~determining~~ adjusting a rotation velocity of the information medium ~~on the basis of~~ according to a data transfer rate based on a specification of a read request.

2. (original) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;  
and

measuring an average transfer rate in data read and lowering a rotation velocity of the information medium if the average transfer rate measured is equal to or lower than a predetermined threshold value.

3. (original) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;  
and

measuring an average transfer rate in data read and raising a rotation velocity of the information medium if the average transfer

rate measured is greater than a predetermined threshold value.

~~3~~ 4. (original) An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;  
measuring an average transfer rate in data read and raising a rotation velocity of the information medium if the average transfer rate measured is greater than a predetermined threshold value; and

lowering the rotation velocity if the average transfer rate is equal to or lower than the predetermined threshold value.

~~3~~ 5. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

monitoring whether the read request is issued; and  
restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

~~4~~ 6. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

monitoring a read address of the read request; and  
restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

~~5~~ 7. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

determining validity of the average transfer rate on the basis of

average transfer rates obtained a number of times of measurement; and  
validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

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8. (original) The information reproducing method as claimed in claim 4, wherein a first threshold value which is one of said predetermined threshold value and is used for raising the rotation velocity of the information medium is greater than a second threshold value which is another one of said predetermined threshold value and is used for lowering the rotation velocity of the information medium.

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9. (previously presented) The information reproducing method as claimed in Claim 2, further comprising the steps of:

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temporarily storing information read from the information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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10. (currently amended) An information reproducing apparatus comprising:

a motor rotating an information medium;

an optical pickup reading information from the information

medium; and

a part ~~determining~~ adapted to adjust a rotation velocity of the information medium ~~on the basis of~~ according to a data transfer rate based on a specification of a read request.

19  
11. (original) An information reproducing apparatus comprising:  
a motor rotating an information medium;  
an optical pickup reading information from the information medium;

a measuring part measuring an average transfer rate in data read;  
a comparing part comparing the average transfer rate measured with a predetermined threshold value; and

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a rotation velocity control part lowering a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured is equal to or lower than a predetermined threshold value.

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12. (original) An information reproducing apparatus comprising:  
a motor rotating an information medium;  
an optical pickup reading information from the information medium;

a measuring part measuring an average transfer rate in data read;  
a comparing part comparing the average transfer rate measured with a predetermined threshold value; and

a rotation velocity control part raising a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured exceeds a predetermined

threshold value.

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13. (original) An information reproducing apparatus comprising:  
a motor rotating an information medium;  
an optical pickup reading information from the information medium;  
a measuring part measuring an average transfer rate in data read;  
a comparing part comparing the average transfer rate measured with a predetermined threshold value; and  
a rotation velocity control part lowering a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured is equal to or lower than a predetermined threshold value and raising the rotation velocity if the result of comparison shows the average transfer rate measured exceeds the predetermined threshold value.

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14. (previously presented) The information reproducing apparatus as claimed in Claim 11, further comprising:

a monitoring part monitoring whether the read request is issued;  
and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

22  
15. (previously presented) The information reproducing apparatus as claimed in Claim 11, further comprising:

a monitoring part monitoring a read address of the read request;

and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

<sup>23</sup>  
~~16~~. (previously presented) The information reproducing apparatus as claimed in Claim ~~11~~<sup>19</sup>, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

a validating part validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

B' <sup>31</sup>  
~~17~~. (original) The information reproducing apparatus as claimed in claim ~~13~~<sup>30</sup>, wherein a first threshold value which is one of said predetermined threshold value and is used for raising the rotation velocity of the information medium is greater than a second threshold value which is another one of said predetermined threshold value and is used for lowering the rotation velocity of the information medium.

<sup>24</sup>  
~~18~~. (previously presented) The information reproducing apparatus as claimed in Claim ~~11~~<sup>19</sup>, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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19. (previously presented) The information reproducing method as claimed in Claim 3, further comprising the steps of:

monitoring whether the read request is issued; and

restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

b'  
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20. (previously presented) The information reproducing method as claimed in Claim 3, further comprising the steps of:

monitoring a read address of the read request; and

restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

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21. (previously presented) The information reproducing method as claimed in Claim 3, further comprising the steps of:

determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

11  
22. (previously presented) The information reproducing method

as claimed in Claim <sup>7</sup>~~3~~, further comprising the steps of:

temporarily storing information read from the information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

<sup>14</sup>~~23~~. (previously presented) The information reproducing method as claimed in Claim ~~2~~<sup>7</sup>, further comprising the steps of:

monitoring whether the read request is issued; and

restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

<sup>15</sup>~~24~~. (previously presented) The information reproducing method as claimed in Claim ~~4~~<sup>12</sup>, further comprising the steps of:

monitoring a read address of the read request; and

restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

<sup>16</sup>~~25~~. (previously presented) The information reproducing method as claimed in Claim ~~4~~<sup>12</sup>, further comprising the steps of:

determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and



validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

<sup>17</sup>  
~~26~~. (previously presented) The information reproducing method as claimed in Claim <sup>12</sup>~~4~~, further comprising the steps of:

temporarily storing information read from the information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

<sup>20</sup>  
<sup>21</sup>~~26~~. (previously presented) The information reproducing apparatus as claimed in Claim <sup>25</sup>~~12~~, further comprising:

a monitoring part monitoring whether the read request is issued; and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

<sup>27</sup>  
<sup>28</sup>~~26~~. (previously presented) The information reproducing apparatus as claimed in Claim <sup>25</sup>~~12~~, further comprising:

a monitoring part monitoring a read address of the read request; and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

<sup>28</sup>  
~~28~~. (previously presented) The information reproducing apparatus as claimed in Claim <sup>25</sup>~~12~~, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

a validating part validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

b' <sup>29</sup>  
~~30~~. (previously presented) The information reproducing apparatus as claimed in Claim <sup>25</sup>~~12~~, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

<sup>32</sup>  
~~31~~. (previously presented) The information reproducing apparatus as claimed in Claim <sup>30</sup>~~13~~, further comprising:

a monitoring part monitoring whether the read request is issued;

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and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

<sup>33</sup>  
32. (previously presented) The information reproducing apparatus as claimed in Claim 1<sup>30</sup>, further comprising:

a monitoring part monitoring a read address of the read request;  
and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than an increasing order.

B' <sup>34</sup>  
33. (previously presented) The information reproducing apparatus as claimed in Claim 1<sup>30</sup>, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

a validating part validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

<sup>35</sup>  
34. (previously presented) The information reproducing apparatus as claimed in Claim 1<sup>30</sup>, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is

available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

<sup>21</sup>  
~~35~~. (previously presented) The information reproducing apparatus as claimed in Claim ~~14~~<sup>20</sup>, further comprising:

a storing part temporarily storing information read from the information medium in a cache memory;

<sup>B1</sup> a pre-reading part pre-reading information if a space is available in the cache memory; and

a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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